

REMARKS

Applicants respectfully request reconsideration of the maintained and newly presented rejections of the claims of the instant application in view of the amendments above and the following remarks.

Applicants acknowledge the Interview Summary issued by the Examiner on July 6, 2009. As discussed with the Examiner in this telephonic interview, the undersigned counsel discussed proposed amendments included in the Supplemental Amendment filed on July 1, 2009.

I. STATUS OF THE CLAIMS

Upon entry of the foregoing amendments, claims 1-8, 18, 56, and 57 will be presently pending. Claims 1, 4, 5, and 18 have been amended without prejudice. No claims have been cancelled. No new claims have been added. Applicants reserve the right to pursue any cancelled subject matter in a continuing or divisional application.

Claim 1 has been amended such that the first proviso no longer recites " R^4 is not $-\text{CH}_2\text{CH}_2\text{OH}$ " because this substituent falls outside of the scope of R^4 as previously recited in the claim. Additionally, claim 1 has been amended to recite that R^3 alone, rather than R^3 and R^4 each independently, may be H. Support for this amendment is provided by the original specification at least at page 13, line 8. Similarly, claim 4 has been amended to place it into proper dependent form, i.e., the subject matter recited therein includes every limitation of claim 1, upon which it depends. Similarly, claim 5 has been amended to recite subject matter that includes every limitation of claim 4, upon which it depends. Claim 18 has been amended to recite the subject matter claimed therein. No new matter has been added.

II. REJECTION UNDER 35 U.S.C. § 112, ¶ 1 (WRITTEN DESCRIPTION)

Claims 1, 4, and 5 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that there is no support in the specification for substituent R^4 to be H. In response to the Examiner's rejection, claims 1, 4, and 5 have been amended such that the definition of R^4 does not include H. Applicants reserve the right to pursue cancelled subject matter in one or more continuing applications prior to issuance of a patent on the instant application. Applicants respectfully submit that this rejection is now moot.

III. REJECTION UNDER 35 U.S.C. § 102(b)

Claims 1, 4, 5, and 18 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,679,801 (Caufield et al.). In particular, the Examiner states that Caufield et al. disclose the synthesis of substituted thiophenone and their derivatives, and that at least one anticipates the previously claimed invention wherein R¹ is H, R² is OH, and R³ and R⁴ are both H. Applicants respectfully submit that Caufield et al. does not disclose any compounds that read on claim 1 as presently amended.

To anticipate a claim, a reference must teach each and every element of the claimed invention. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987) ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."); see also MPEP § 2131. Here, Caufield et al. does not teach thiophenone compounds of formula I of the presently claimed invention in which R¹ is H and R⁴ is a substituent other than H (e.g., where R⁴ is C₁-C₂₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl). This reference is directed to tetronic acid and thiotetronic acid derivatives in which R¹ is CH₂R. See Caufield et al., abstract. Caufield et al. discloses thiotetronic acid as a reactant with which thiotetronic acid derivatives may be made. See Caufield et al., col. 16, ln. 56; col. 19, ln. 12-13. Applicants respectfully submit, however, that thiotetronic acid is the only compound disclosed by Caufield et al. in which R¹ is H. In turn, Caufield et al. does not teach or suggest any reactant, intermediate, or product of formula I of the presently claimed invention in which R¹ is H and R⁴ is a substituent other than H. Furthermore, absent the disclosure of the instant invention, one of ordinary skill in the art would have no suggestion or motivation to create a compound of formula I where R¹ is H, and R⁴ is a substituent other than H.

Applicants respectfully request reconsideration and withdraw of this rejection.

CONCLUSION

In view of the abovementioned amendments and remarks, Applicants respectfully assert that this application is now in condition for allowance. The Examiner is invited to contact the undersigned counsel in order to further the prosecution of this application in any way.

Respectfully submitted,

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